WHAT IS CLAIMED IS:

1. An MPEG picture data recording apparatus for recording an MPEG picture data that is a picture data compressed according to an MPEG encoding system, the MPEG picture data recording apparatus comprising:

recording means for recording the MPEG picture data onto a recording medium together with information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before an I picture, information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before a P picture, and information that shows a VBV buffer occupation value at an end point in time of recording, in a bit stream of the MPEG picture data respectively, and address information that shows a point of time of the MPEG picture data each VBV buffer occupation value belongs to.

2. An MPEG picture data recording apparatus for recording an MPEG picture data that is a picture data compressed according to an MPEG encoding system, wherein

in the case of additionally recording a second MPEG picture data at an end position of a first MPEG picture data or at an intermediate position of the first MPEG picture data

onto a recording medium that has already been recorded with the first MPEG picture data, together with information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before an I picture, information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before a P picture, and information that shows a VBV buffer occupation value at an end point in time of recording, in a bit stream of the first MPEG picture data respectively, and address information that shows a point of time of the first MPEG picture data each VBV buffer occupation value belongs to,

the MPEG picture data recording apparatus comprises:

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detecting means for detecting information that shows the VBV buffer occupation value corresponding to a position nearest to the position of starting the additional recording of the second MPEG picture data in the first MPEG picture data, based on the address information;

encoding means for executing an MPEG encoding of the second picture data and obtaining the second MPEG picture data, while starting a VBV buffer control based on the detected information that shows the VBV buffer occupation value,; and

recording means for recording the second MPEG picture data onto the recording medium.

3. An MPEG picture data recording method for recording an MPEG picture data that is a picture data compressed according to an MPEG encoding system, the MPEG picture data recording method comprising the steps of:

generating information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before an I picture, information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before a P picture, and information that shows a VBV buffer occupation value at an end point in time of recording, in a bit stream of the MPEG picture data respectively;

generating address information that shows a point of time of the MPEG picture data each VBV buffer occupation value belongs to; and

recording the information that shows each VBV buffer occupation value, and the address information onto a recording medium together with the MPEG picture data.

4. An MPEG picture data recording method for recording an MPEG picture data that is a picture data compressed according to an MPEG encoding system, wherein

in the case of additionally recording a second MPEG picture data at an end position of a first MPEG picture data

or at an intermediate position of the first MPEG picture data

onto a recording medium that has already been recorded with the first MPEG picture data, together with information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before an I picture, information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before a P picture, and information that shows a VBV buffer occupation value at an end point in time of recording, in a bit stream of the first MPEG picture data respectively, and address information that shows a point of time of the first MPEG picture data each VBV buffer occupation value belongs to,

the MPEG picture data recording method comprises the steps of:

detecting information that shows the VBV buffer occupation value corresponding to a position nearest to the position of starting the additional recording of the second MPEG picture data in the first MPEG picture data, based on the address information;

executing an MPEG encoding of the second picture data and obtaining the second MPEG picture data, while starting a VBV buffer control based on the detected information that shows the VBV buffer occupation value,; and

recording the second MPEG picture data onto the recording medium.

5. A recording medium that is recorded with

an MPEG picture data as a picture data compressed according to an MPEG encoding system, together with

information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before an I picture, information that shows a VBV buffer occupation value at an end point in time of encoding of a picture one frame before a P picture, and information that shows a VBV buffer occupation value at an end point in time of recording, in a bit stream of the MPEG picture data respectively, and

address information that shows a point of time of the MPEG picture data each VBV buffer occupation value belongs to.

6. An MPEG picture data recording apparatus for recording an MPEG picture data that is a picture data encoded according to an MPEG encoding system, the MPEG picture data recording apparatus comprising:

VBV buffer information recording means for recording onto a recording medium, VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each predetermined section of the MPEG picture data, and address information that shows a position of the VBV buffer occupation value relevant information in the MPEG picture data.

7. An MPEG picture data recording apparatus comprising recording means for recording a generated connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein

the first MPEG picture data VBV has first VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information that shows a position of the first VBV buffer occupation value relevant information in the first MPEG picture data,

the second MPEG picture data VBV has second VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value

at an MPEG encoding starting point in time or an end point in time of a last picture in each second predetermined section of the second MPEG picture data, and second address information that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and the recording means comprises:

detecting means for detecting the first VBV buffer occupation value relevant information corresponding to a starting position of a connection section based on the first address information, and detecting the second VBV buffer occupation value relevant information corresponding to the specified connection position in the second MPEG picture data based on the second address information, with the specified connection position specified as a boundary of the second predetermined section in at least the second MPEG picture data, wherein the connection section is a section from a boundary of the first predetermined section located a predetermined time before the specified connection position in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position; and

re-encoding means for re-encoding the connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the connection section, according to the MPEG encoding system, thereby to obtain the connection section re-encoded data, by executing the re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer occupation value relevant information and ends with the information value relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant information,

thereby recording the connection section

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re-encoded data onto a recording medium.

8. The MPEG picture data recording apparatus according to Claim 7, wherein the recording means records a connection

5 section MPEG multiplexed data that includes the connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

10 9. An MPEG picture data recording apparatus comprising recording means for recording a generated connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture

15 data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein
the first MPEG picture data VBV has first VBV buffer

20 occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information

25 that shows a position of the first VBV buffer occupation value relevant information in the first MPEG picture data,
the second MPEG picture data VBV has second VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value

30 at an MPEG encoding starting point in time or an end point in time of a last picture in each second predetermined section of the second MPEG picture data, and second address information that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and

35 the recording means comprises:
detecting means for detecting the first VBV buffer

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occupation value relevant information corresponding to an specified connection position in the first MPEG picture data based on the first address information, and detecting the second VBV buffer occupation value relevant information

5 corresponding to an end position of a connection section based on the second address information, with the specified connection position specified as a boundary of the first predetermined section in at least the first MPEG picture data, wherein the connection section is a section from the specified

10 connection position in the second MPEG picture data as a starting position to a boundary of the second predetermined section located a predetermined time after the specified connection position in the second MPEG picture data as the end position; and

15 re-encoding means for re-encoding the connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in the connection section, according to the MPEG encoding system, thereby to obtain the connection section re-encoded data, by executing the

20 re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer

25 occupation value relevant information and ends with the information value relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant information,

thereby recording the connection section

30 re-encoded data onto a recording medium.

10. The MPEG picture data recording apparatus according to Claim 9, wherein the recording means records a connection section MPEG multiplexed data that includes the connection

35 section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to

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the MPEG encoding system.

11. An MPEG picture data recording apparatus comprising recording means for recording a generated third connection
5   section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to
10 the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein
the first MPEG picture data VBV has first VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value
15 at an MPEG encoding starting point in time or an end point in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information that shows a position of the first VBV buffer occupation value relevant information in the first MPEG picture data,
20   the second MPEG picture data VBV has second VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each second predetermined section
25 of the second MPEG picture data, and second address information that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and
the recording means comprises:
detecting means for detecting the first VBV buffer
30 occupation value relevant information corresponding to a starting position of a first connection section based on the first address information, and detecting the second VBV buffer occupation value relevant information corresponding to an end position of a second connection section based on the second
35 address information, wherein the first connection section is a section from a boundary of the first predetermined section

located a first predetermined time before the specified connection position in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position, and the second

5　　connection section is a section from the specified connection position in the second MPEG picture data to a boundary of the second predetermined section located a second predetermined time after the specified connection position in the second MPEG picture data as an end position; and

10　　　　　　　　re-encoding means for re-encoding a third connection section decoded picture data according to the MPEG encoding system thereby to obtain a third connection section re-encoded data, by executing the re-encoding while controlling the amount of code such that a transition of the

15　　information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer occupation value relevant information and ends with the information value

20　　relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant information, wherein the third connection section is a section obtained by combining the first connection section and the second connection section together, and the third connection

25　　section decoded picture data consists of a first connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the first connection section, and a second connection section decoded picture data as a picture data obtained by decoding the second MPEG picture

30　　data in the second connection section,

　　　　　　　　thereby recording the third connection section re-encoded data onto a recording medium.

　　　　　　　12. The MPEG picture data recording apparatus according

35　　to claim 11, wherein the recording means records a connection section MPEG multiplexed data that includes the third

connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

5   13. An MPEG picture data recording apparatus for recording an MPEG multiplexed data that includes an MPEG picture data as a picture data encoded according to an MPEG encoding system as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG

10   encoding system, the MPEG picture data recording apparatus comprising:

VBV buffer information recording means for recording onto a recording medium, VBV buffer occupation value relevant information that shows an information value relating to a VBV

15   buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each predetermined section of the MPEG picture data, and address information that shows a position of the VBV buffer occupation value relevant information in the MPEG picture data.

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14. An MPEG picture data recording medium that is recorded with

two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according

25   to an MPEG encoding system, and

a connection section re-encoded data encoded according to the MPEG encoding system as a data for reproducing the first MPEG picture data and the second MPEG picture data by connecting the first MPEG picture data to the second MPEG picture data

30   at specified connection positions specified in the first and second MPEG picture data respectively, wherein

the connection section re-encoded data is a re-encoded data generated by re-encoding a connection section decoded picture data as a picture data obtained by decoding the first

35   MPEG picture data in a connection section, according to the MPEG encoding system, wherein the connection section is a

section from a position located a predetermined time before the specified connection position in the first MPEG picture data as a starting position to the specified connection position in the first MPEG picture data as an end position,

5 and

the re-encoding is executed while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer

10 occupation value at the time of encoding the first MPEG picture data at a position corresponding to the starting position of the connection section and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position

15 corresponding to the specified connection position.

15. An MPEG picture data recording medium that is recorded with

two MPEG picture data of a first MPEG picture data and

20 a second MPEG picture data as a picture data encoded according to an MPEG encoding system, and

a connection section re-encoded data encoded according to the MPEG encoding system as a data for reproducing the first MPEG picture data and the second MPEG picture data by connecting

25 the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the first and second MPEG picture data respectively, wherein

the connection section re-encoded data is a re-encoded data generated by re-encoding a connection section decoded

30 picture data as a picture data obtained by decoding the second MPEG picture data in a connection section, according to the MPEG encoding system, wherein the connection section is a section from the specified connection position in the second MPEG picture data as a starting position to a position located

35 a predetermined time after the specified connection position in the second MPEG picture data as an end position, and

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the re-encoding is executed while controlling the amount
of code such that a transition of the information value relating
to the VBV buffer occupation value at the time of the re-encoding
starts from the information value relating to the VBV buffer
occupation value at the time of encoding the first MPEG picture
data at a position corresponding to the specified connection
position and ends with the information value relating to the
VBV buffer occupation value at the time of encoding the second
MPEG picture data at a position corresponding to the end
position of the connection section.

16. An MPEG picture data recording medium that is
recorded with

two MPEG picture data of a first MPEG picture data and
a second MPEG picture data as a picture data encoded according
to an MPEG encoding system, and

a third connection section re-encoded data encoded
according to the MPEG encoding system as a data for reproducing
the first MPEG picture data and the second MPEG picture data
by connecting the first MPEG picture data to the second MPEG
picture data at specified connection positions specified in
the first and second MPEG picture data respectively, wherein

the third connection section re-encoded data is an
encoded data obtained by re-encoding a third connection section
decoded picture data consisting of a first connection section
decoded picture data as a picture data obtained by decoding
the first MPEG picture data in a first connection section,
and a second connection section decoded picture data as a
picture data obtained by decoding the second MPEG picture data
in the second connection section, wherein the first connection
section is a section from a position located a first
predetermined time before the specified connection position
in the first MPEG picture data as a starting position to the
specified connection position in the first MPEG picture data
as an end position, the second connection section is a section
from the specified connection position in the second MPEG

picture data to a position located a second predetermined time after the specified connection position in the second MPEG picture data as an end position, and the third connection section is a section consisting of the first connection section

5   and the second connection section; and

the re-encoding is executed while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer

10   occupation value at the time of encoding the first MPEG picture data at a position corresponding to the specified connection position and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position corresponding to the end

15   position of the connection section.

17. An MPEG picture data recording medium recorded with a first MPEG multiplexed data that includes a first MPEG picture data as a picture data encoded according to an MPEG

20   encoding system as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system,

a second MPEG multiplexed data that includes a second MPEG picture data as a picture data encoded according to an

25   MPEG encoding system as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, and

a connection section MPEG multiplexed data that includes a connection section re-encoded data as an element encoded

30   data and that has been generated by being packet-multiplexed according to the MPEG encoding system, wherein the connection section re-encoded data is a data encoded according to the MPEG encoding system, for reproducing the first MPEG picture data and the second MPEG picture data by connecting the first

35   MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture

data, wherein

the connection section re-encoded data is a re-encoded data generated by re-encoding a connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in a connection section, according to the MPEG encoding system, wherein the connection section is a section from a position located a predetermined time before the specified connection position in the first MPEG picture data as a starting position to the specified connection position in the first MPEG picture data as an end position, and

the re-encoding is executed while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture data at a position corresponding to the starting position of the connection section and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position corresponding to the specified connection position.

18. An MPEG picture data recording medium recorded with a first MPEG multiplexed data that includes a first MPEG picture data as a picture data encoded according to an MPEG encoding system as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system,

a second MPEG multiplexed data that includes a second MPEG picture data as a picture data encoded according to an MPEG encoding system as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, and

a connection section MPEG multiplexed data that includes a connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed

according to the MPEG encoding system, wherein the connection section re-encoded data is a data encoded according to the MPEG encoding system, for reproducing the first MPEG picture data and the second MPEG picture data by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein

the connection section re-encoded data is a re-encoded data generated by re-encoding a connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in a connection section, according to the MPEG encoding system, wherein the connection section is a section from the specified connection position in the second MPEG picture data as a starting position to a position located a predetermined time after the specified connection position in the second MPEG picture data as an end position, and

the re-encoding is executed while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture data at a position corresponding to the specified connection position and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position corresponding to the end position of the connection section.

19. An MPEG picture data recording medium recorded with a first MPEG multiplexed data that includes a first MPEG picture data as a picture data encoded according to an MPEG encoding system as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system,

a second MPEG multiplexed data that includes a second MPEG picture data as a picture data encoded according to an MPEG encoding system as an element encoded data and that has

been generated by being packet-multiplexed according to the MPEG encoding system, and

a third connection section MPEG multiplexed data that includes a third connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, wherein the connection section re-encoded data is a data encoded according to the MPEG encoding system, for reproducing the first MPEG picture data and the second MPEG picture data by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein

the third connection section re-encoded data is an encoded data obtained by re-encoding a third connection section decoded picture data consisting of a first connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in a first connection section, and a second connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in the second connection section, wherein the first connection section is a section from a position located a first predetermined time before the specified connection position in the first MPEG picture data as a starting position to the specified connection position in the first MPEG picture data as an end position, the second connection section is a section from the specified connection position in the second MPEG picture data to a position located a second predetermined time after the specified connection position in the second MPEG picture data as an end position, and the third connection section is a section consisting of the first connection section and the second connection section; and

the re-encoding is executed while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture

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data at a position corresponding to the specified connection position and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position corresponding to the end

5   position of the connection section.

20. An MPEG picture data generating apparatus comprising generating means for generating a connection section re-encoded data that has been encoded according to an MPEG

10   encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified

15   in the respective MPEG picture data, wherein
the first MPEG picture data has first VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point

20   in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information that shows a position of the first VBV buffer occupation value relevant information in the first MPEG picture data,
the second MPEG picture data has second VBV buffer

25   occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each second predetermined section of the second MPEG picture data, and second address information

30   that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and
the generating means comprises:
detecting means for detecting the first VBV buffer occupation value relevant information corresponding to a

35   starting position of a connection section based on the first address information, and detecting the second VBV buffer

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occupation value relevant information corresponding to the specified connection position in the second MPEG picture data based on the second address information, with the specified connection position specified as a boundary of the second predetermined section in at least the second MPEG picture data, wherein the connection section is a section from a boundary of the first predetermined section located a predetermined time before the specified connection position in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position; and

re-encoding means for re-encoding the connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the connection section, according to the MPEG encoding system, thereby to obtain the connection section re-encoded data, by executing the re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer occupation value relevant information and ends with the information value relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant information.

21. The MPEG picture data generating apparatus according to Claim 20, wherein the generating means generates a connection section MPEG multiplexed data that includes the connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

22. An MPEG picture data generating apparatus comprising generating means for generating a connection section re-encoded data that has been encoded according to an MPEG

encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein

the first MPEG picture data has first VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information that shows a position of the first VBV buffer occupation value relevant information in the first MPEG picture data,

the second MPEG picture data has second VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each second predetermined section of the second MPEG picture data, and second address information that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and

the generating means comprises:

detecting means for detecting the first VBV buffer occupation value relevant information corresponding to an specified connection position in the first MPEG picture data based on the first address information, and detecting the second VBV buffer occupation value relevant information corresponding to an end position of a connection section based on the second address information, with the specified connection position specified as a boundary of the first predetermined section in at least the first MPEG picture data, wherein the connection section is a section from the specified connection position in the second MPEG picture data as a starting position to a boundary of the second predetermined section located a predetermined time after the specified

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connection position in the second MPEG picture data as the
end position; and

re-encoding means for re-encoding the connection
section decoded picture data as a picture data obtained by
decoding the second MPEG picture data in the connection section,
according to the MPEG encoding system, thereby to obtain the
connection section re-encoded data, by executing the
re-encoding while controlling the amount of code such that
a transition of the information value relating to the VBV buffer
occupation value at the time of the re-encoding starts from
the information value relating to the VBV buffer occupation
value obtained based on the detected first VBV buffer
occupation value relevant information and ends with the
information value relating to the VBV buffer occupation value
obtained based on the detected second VBV buffer occupation
value relevant information.

23. The MPEG picture data generating apparatus according
to Claim 22, wherein the generating means generates a
connection section MPEG multiplexed data that includes the
connection section re-encoded data as an element encoded data
and that has been generated by being packet-multiplexed
according to the MPEG encoding system.

24. An MPEG picture data generating apparatus comprising
generating means for generating a third connection section
re-encoded data that has been encoded according to an MPEG
encoding system as a data for reproducing two MPEG picture
data of a first MPEG picture data and a second MPEG picture
data as a picture data encoded according to the MPEG encoding
system by connecting the first MPEG picture data to the second
MPEG picture data at specified connection positions specified
in the respective MPEG picture data, wherein

the first MPEG picture data has first VBV buffer
occupation value relevant information that shows an
information value relating to a VBV buffer occupation·value

at an MPEG encoding starting point in time or an end point in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information that shows a position of the first VBV buffer occupation value

5   relevant information in the first MPEG picture data,

the second MPEG picture data has second VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point

10   in time of a last picture in each second predetermined section of the second MPEG picture data, and second address information that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and

the generating means comprises:

15   detecting means for detecting the first VBV buffer occupation value relevant information corresponding to a starting position of a first connection section based on the first address information, and detecting the second VBV buffer occupation value relevant information corresponding to an end

20   position of a second connection section based on the second address information, wherein the first connection section is a section from a boundary of the first predetermined section located a first predetermined time before the specified connection position in the first MPEG picture data as the

25   starting position to the specified connection position in the first MPEG picture data as an end position, and the second connection section is a section from the specified connection position in the second MPEG picture data to a boundary of the second predetermined section located a second predetermined

30   time after the specified connection position in the second MPEG picture data as an end position; and

re-encoding means for re-encoding a third connection section decoded picture data according to the MPEG encoding system thereby to obtain a third connection section

35   re-encoded data, by executing the re-encoding while controlling the amount of code such that a transition of the

information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer occupation value

5   relevant information and ends with the information value relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant information, wherein the third connection section is a section obtained by combining the first connection section and the

10 second connection section together, and the third connection section decoded picture data consists of a first connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the first connection section, and a second connection section decoded picture data

15 as a picture data obtained by decoding the second MPEG picture data in the second connection section.

    25. The MPEG picture data generating apparatus according to Claim 24, wherein the generating means generates a third

20 connection section MPEG multiplexed data that includes the third connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

25   26. An MPEG picture data recording method comprising the steps of:
    recording onto a recording medium, VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding

30 starting point in time or an end point in time of a last picture in each predetermined section of an MPEG picture data that is a picture data encoded according to an MPEG encoding system, and address information that shows a position of the VBV buffer occupation value relevant information in the MPEG picture data.

35

    27. The MPEG picture data recording method according

to Claim 26, wherein the MPEG picture data is obtained from an MPEG multiplexed data that has been generated by being packet-multiplexed according to the MPEG encoding system.

5   28. An MPEG picture data recording method comprising a recording step of recording a generated connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture
10   data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein

the first MPEG picture data VBV has first VBV buffer
15   occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information
20   that shows a position of the first VBV buffer occupation value relevant information in the first MPEG picture data,

the second MPEG picture data VBV has second VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value
25   at an MPEG encoding starting point in time or an end point in time of a last picture in each second predetermined section of the second MPEG picture data, and second address information that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and
30   the recording step comprises:
a detecting step of detecting the first VBV buffer occupation value relevant information corresponding to a starting position of a connection section based on the first address information, and detecting the second VBV buffer
35   occupation value relevant information corresponding to the specified connection position in the second MPEG picture data

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based on the second address information, with the specified connection position specified as a boundary of the second predetermined section in at least the second MPEG picture data, wherein the connection section is a section from a boundary

5   of the first predetermined section located a predetermined time before the specified connection position in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position; and

10   a re-encoding step of re-encoding the connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the connection section, according to the MPEG encoding system, thereby to obtain the connection section re-encoded data, by executing the

15   re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer

20   occupation value relevant information and ends with the information value relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant information,
           thereby recording the connection section

25   re-encoded data onto a recording medium.

        29. The MPEG picture data recording method according to Claim 28, wherein the recording step records a connection section MPEG multiplexed data that includes the connection

30   section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

        30. An MPEG picture data recording method comprising

35   a recording step of recording a generated connection section re-encoded data that has been encoded according to an MPEG

encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second

5 MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein

the first MPEG picture data VBV has first VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value

10 at an MPEG encoding starting point in time or an end point in time of a last picture in each first predetermined section of the first MPEG picture data, and first address information that shows a position of the first VBV buffer occupation value relevant information in the first MPEG picture data,

15 the second MPEG picture data VBV has second VBV buffer occupation value relevant information that shows an information value relating to a VBV buffer occupation value at an MPEG encoding starting point in time or an end point in time of a last picture in each second predetermined section

20 of the second MPEG picture data, and second address information that shows a position of the second VBV buffer occupation value relevant information in the second MPEG picture data, and

the recording step comprises:

a detecting step of detecting the first VBV buffer

25 occupation value relevant information corresponding to an specified connection position in the first MPEG picture data based on the first address information, and detecting the second VBV buffer occupation value relevant information corresponding to an end position of a connection section based

30 on the second address information, with the specified connection position specified as a boundary of the first predetermined section in at least the first MPEG picture data, wherein the connection section is a section from the specified connection position in the second MPEG picture data as a

35 starting position to a boundary of the second predetermined section located a predetermined time after the specified

connection position in the second MPEG picture data as the end position; and

a re-encoding step of re-encoding the connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in the connection section, according to the MPEG encoding system, thereby to obtain the connection section re-encoded data, by executing the re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer occupation value relevant information and ends with the information value relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant information,

thereby recording the connection section re-encoded data onto a recording medium.

31. The MPEG picture data recording method according to Claim 30, wherein the recording step records a connection section MPEG multiplexed data that includes the connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

32. An MPEG picture data recording method comprising a recording step of recording a generated third connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, wherein

the first MPEG picture data VBV has first VBV buffer

occupation value relevant information that shows an
information value relating to a VBV buffer occupation value
at an MPEG encoding starting point in time or an end point
in time of a last picture in each first predetermined section
5   of the first MPEG picture data, and first address information
that shows a position of the first VBV buffer occupation value
relevant information in the first MPEG picture data,

the second MPEG picture data VBV has second VBV buffer
occupation value relevant information that shows an
10   information value relating to a VBV buffer occupation value
at an MPEG encoding starting point in time or an end point
in time of a last picture in each second predetermined section
of the second MPEG picture data, and second address information
that shows a position of the second VBV buffer occupation value
15   relevant information in the second MPEG picture data, and
the recording step comprises:

a detecting step of detecting the first VBV buffer
occupation value relevant information corresponding to a
starting position of a first connection section based on the
20   first address information, and detecting the second VBV buffer
occupation value relevant information corresponding to an end
position of a second connection section based on the second
address information, wherein the first connection section is
a section from a boundary of the first predetermined section
25   located a first predetermined time before the specified
connection position in the first MPEG picture data as the
starting position to the specified connection position in the
first MPEG picture data as an end position, and the second
connection section is a section from the specified connection
30   position in the second MPEG picture data to a boundary of the
second predetermined section located a second predetermined
time after the specified connection position in the second
MPEG picture data as an end position; and

a re-encoding step of re-encoding a third
35   connection section decoded picture data according to the MPEG
encoding system thereby to obtain a third connection section

re-encoded data, by executing the re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information

5   value relating to the VBV buffer occupation value obtained based on the detected first VBV buffer occupation value relevant information and ends with the information value relating to the VBV buffer occupation value obtained based on the detected second VBV buffer occupation value relevant

10   information, wherein the third connection section is a section obtained by combining the first connection section and the second connection section together, and the third connection section decoded picture data consists of a first connection section decoded picture data as a picture data obtained by

15   decoding the first MPEG picture data in the first connection section, and a second connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in the second connection section,

thereby recording the third connection section

20   re-encoded data onto a recording medium.

33. The MPEG picture data recording method according to claim 32, wherein the recording step records a connection section MPEG multiplexed data that includes the third

25   connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

34. An MPEG picture data recording method comprising

30   a recording step of recording a generated third connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG

35   encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions

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specified in the respective MPEG picture data, wherein

a first connection section is a section from a boundary of the first predetermined section located a first predetermined time before the specified connection position in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position; a second connection section is a section from the specified connection position in the second MPEG picture data to a boundary of the second predetermined section located a second predetermined time after the specified connection position in the second MPEG picture data as an end position; and a third connection section is a section obtained by connecting the first connection section and the second connection section,

the recording step re-encodes a third connection section decoded picture data according to the MPEG encoding system thereby to obtain a third connection section re-encoded data and record the third connection section re-encoded data onto a recording medium, wherein the third connection section decoded picture data consists of a first connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the first connection section, and a second connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in the second connection section, and

the re-encoding is executed while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture data at a position corresponding to the specified connection position and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position corresponding to the end position of the connection section.

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35. An MPEG picture data reproducing apparatus for reproducing MPEG picture data as a picture data encoded according to the MPEG encoding system, the MPEG picture data reproducing apparatus comprising:

5   connectively reproducing means for obtaining a connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data by connecting the first MPEG picture data

10   to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, and then connectively reproducing the first MPEG picture data and the second MPEG picture data, wherein

the connection section re-encoded data is re-encoded

15   data generated by re-encoding the connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the connection section, according to the MPEG encoding system, by executing the re-encoding while controlling the amount of code such that a transition of the

20   information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture data at a position corresponding to a starting position of the connection section

25   and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position corresponding to the specified connection position in the second MPEG picture data, wherein the connection section is a section from a position located a

30   predetermined time before the specified connection position in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position, and

the connectively reproducing means reproduces the first

35   MPEG picture data to the starting position of the connection section, and then reproduces the connection section re-encoded

data from the starting position of the connection section to the end position thereof, and then reproduces the second MPEG picture data from the specified connection position in the second MPEG picture.

5

36. The MPEG picture data reproducing apparatus according to Claim 35, wherein the first MPEG picture data is picture data obtained from a first MPEG multiplexed data that includes the first MPEG picture data as an element encoded

10 data and that has been generated by being packet-multiplexed according to the MPEG encoding system, the second MPEG picture data is picture data obtained from a second MPEG multiplexed data that includes the second MPEG picture data as an element encoded data and that has been generated by being

15 packet-multiplexed according to the MPEG encoding system, and the connection section re-encoded data is picture data obtained from a connection section MPEG multiplexed data that includes the connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed

20 according to the MPEG encoding system.

37. An MPEG picture data reproducing apparatus for reproducing MPEG picture data as a picture data encoded according to the MPEG encoding system, the MPEG picture data

25 reproducing apparatus comprising:
connectively reproducing means for obtaining a connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second

30 MPEG picture data by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, and then connectively reproducing the first MPEG picture data and the second MPEG picture data, wherein

35 the connection section re-encoded data is re-encoded data generated by re-encoding the connection section decoded

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picture data as a picture data obtained by decoding the first
MPEG picture data in the connection section, according to the
MPEG encoding system, by executing the re-encoding while
controlling the amount of code such that a transition of the
5   information value relating to the VBV buffer occupation value
at the time of the re-encoding starts from the information
value relating to the VBV buffer occupation value at the time
of encoding the first MPEG picture data at a position
corresponding to the specified connection position in the first
10   MPEG picture data and ends with the information value relating
to the VBV buffer occupation value at the time of encoding
the second MPEG picture data at a position corresponding to
an end position of the connection section, wherein the
connection section is a section from the specified connection
15   position in the second MPEG picture data as a starting position
to a position located a predetermined time after the specified
connection position in the second MPEG picture data as the
end position, and

        the connectively reproducing means reproduces the first
20   MPEG picture data to the specified connection position in the
first MPEG picture, and then reproduces the connection section
re-encoded data from the starting position of the connection
section to the ending position thereof, and then reproduces
the second MPEG picture data from the end position of the
25   connection section.

        38. The MPEG picture data reproducing apparatus
according to Claim 36, wherein the first MPEG picture data
is picture data obtained from a first MPEG multiplexed data
30   that includes the first MPEG picture data as an element encoded
data and that has been generated by being packet-multiplexed
according to the MPEG encoding system, the second MPEG picture
data is picture data obtained from a second MPEG multiplexed
data that includes the second MPEG picture data as an element
35   encoded   data   and   that   has   been   generated   by   being
packet-multiplexed according to the MPEG encoding system, and

the connection section re-encoded data is picture data obtained from a connection section MPEG multiplexed data that includes the connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

39. An MPEG picture data reproducing apparatus for reproducing MPEG picture data as a picture data encoded according to the MPEG encoding system, the MPEG picture data reproducing apparatus comprising:

connectively reproducing means for obtaining a third connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, and then connectively reproducing the first MPEG picture data and the second MPEG picture data, wherein

the connection section re-encoded data is re-encoded data generated by re-encoding, according to the MPEG encoding system, the third connection section decoded picture data consisting of a first connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the first connection section, and a second connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in the second connection section, by executing the re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture data at a position corresponding to a starting position of the first connection section and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture

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data at a position corresponding to an end position of the second connection position, wherein the first connection section is a section from a position located a first predetermined time before the specified connection position

5   in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position, the second connection section is a section from the specified connection position in the second MPEG picture data as a starting position to a position located

10   a second predetermined time after the specified connection position in the second MPEG picture data as the end position, and the third connection section is a section obtained by combining the first connection section and the second connection section together, and

15   the connectively reproducing means reproduces the first MPEG picture data to the starting position of the first connection section, and then reproduces the third connection section re-encoded data from the starting position of the third connection section to the end position thereof, and then

20   reproduces the second MPEG picture data from the end position of the second connection section.

40.   The MPEG picture data reproducing apparatus according to Claim 39, wherein the first MPEG picture data

25   is picture data obtained from a first MPEG multiplexed data that includes the first MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, the second MPEG picture data is picture data obtained from a second MPEG multiplexed

30   data that includes the second MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, and the third connection section re-encoded data is picture data obtained from a connection section MPEG multiplexed data that

35   includes the third connection section re-encoded data as an element encoded data and that has been generated by being

packet-multiplexed according to the MPEG encoding system.

41. An MPEG picture data reproducing method comprising
a connectively reproducing step of obtaining a connection
5   section re-encoded data that has been encoded according to
an MPEG encoding system as a data for reproducing two MPEG
picture data of a first MPEG picture data and a second MPEG
picture data as a picture data encoded according to the MPEG
encoding system by connecting the first MPEG picture data to
10   the second MPEG picture data at specified connection positions
specified in the respective MPEG picture data, and then
connectively reproducing the first MPEG picture data and the
second MPEG picture data, wherein
the connection section re-encoded data is re-encoded
15   data generated by re-encoding the connection section decoded
picture data as a picture data obtained by decoding the first
MPEG picture data in the connection section, according to the
MPEG encoding system, by executing the re-encoding while
controlling the amount of code such that a transition of the
20   information value relating to the VBV buffer occupation value
at the time of the re-encoding starts from the information
value relating to the VBV buffer occupation value at the time
of encoding the first MPEG picture data at a position
corresponding to a starting position of the connection section
25   and ends with the information value relating to the VBV buffer
occupation value at the time of encoding the second MPEG picture
data at a position corresponding to the specified connection
position in the second MPEG picture data, wherein the
connection section is a section from a position located a
30   predetermined time before the specified connection position
in the first MPEG picture data as the starting position to
the specified connection position in the first MPEG picture
data as an end position, and
the connectively reproducing step reproduces the first
35   MPEG picture data to the starting position of the connection
section, and then reproduces the connection section re-encoded

data from the starting position of the connection section to the end position thereof, and then reproduces the second MPEG picture data from the specified connection position in the second MPEG picture.

42. The MPEG picture data reproducing method according to Claim 41, wherein the first MPEG picture data is picture data obtained from a first MPEG multiplexed data that includes the first MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, the second MPEG picture data is picture data obtained from a second MPEG multiplexed data that includes the second MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, and the connection section re-encoded data is picture data obtained from a connection section MPEG multiplexed data that includes the connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

43. An MPEG picture data reproducing method comprising a connectively reproducing step of obtaining a connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, and then connectively reproducing the first MPEG picture data and the second MPEG picture data, wherein

the connection section re-encoded data is re-encoded data generated by re-encoding the connection section decoded picture data as a picture data obtained by decoding the first MPEG picture data in the connection section, according to the

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MPEG encoding system, by executing the re-encoding while controlling the amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information

5   value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture data at a position corresponding to the specified connection position in the first MPEG picture data and ends with the information value relating to the VBV buffer occupation value at the time of encoding

10   the second MPEG picture data at a position corresponding to an end position of the connection section, wherein the connection section is a section from the specified connection position in the second MPEG picture data as a starting position to a position located a predetermined time after the specified

15   connection position in the second MPEG picture data as the end position, and

the connectively reproducing step reproduces the first MPEG picture data to the specified connection position in the first MPEG picture, and then reproduces the connection section

20   re-encoded data from the starting position of the connection section to the ending position thereof, and then reproduces the second MPEG picture data from the end position of the connection section.

25   44. The MPEG picture data reproducing method according to Claim 43, wherein the first MPEG picture data is picture data obtained from a first MPEG multiplexed data that includes the first MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according

30   to the MPEG encoding system, the second MPEG picture data is picture data obtained from a second MPEG multiplexed data that includes the second MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, and the connection

35   section re-encoded data is picture data obtained from a connection section MPEG multiplexed data that includes the

connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.

5   45. An MPEG picture data reproducing method comprising a connectively reproducing step of obtaining a third connection section re-encoded data that has been encoded according to an MPEG encoding system as a data for reproducing two MPEG picture data of a first MPEG picture data and a second MPEG

10   picture data as a picture data encoded according to the MPEG encoding system by connecting the first MPEG picture data to the second MPEG picture data at specified connection positions specified in the respective MPEG picture data, and then connectively reproducing the first MPEG picture data and the

15   second MPEG picture data, wherein

          the connection section re-encoded data is re-encoded data generated by re-encoding, according to the MPEG encoding system, the third connection section decoded picture data consisting of a first connection section decoded picture data

20   as a picture data obtained by decoding the first MPEG picture data in the first connection section, and a second connection section decoded picture data as a picture data obtained by decoding the second MPEG picture data in the second connection section, by executing the re-encoding while controlling the

25   amount of code such that a transition of the information value relating to the VBV buffer occupation value at the time of the re-encoding starts from the information value relating to the VBV buffer occupation value at the time of encoding the first MPEG picture data at a position corresponding to

30   a starting position of the first connection section and ends with the information value relating to the VBV buffer occupation value at the time of encoding the second MPEG picture data at a position corresponding to an end position of the second connection position, wherein the first connection

35   section is a section from a position located a first predetermined time before the specified connection position

in the first MPEG picture data as the starting position to the specified connection position in the first MPEG picture data as an end position, the second connection section is a section from the specified connection position in the second

5   MPEG picture data as a starting position to a position located a second predetermined time after the specified connection position in the second MPEG picture data as the end position, and the third connection section is a section obtained by combining the first connection section and the second

10 connection section together, and

the connectively reproducing step reproduces the first MPEG picture data to the starting position of the first connection section, and then reproduces the third connection section re-encoded data from the starting position of the third

15 connection section to the end position thereof, and then reproduces the second MPEG picture data from the end position of the second connection section.

46. The MPEG picture data reproducing method according

20 to Claim 45, wherein the first MPEG picture data is picture data obtained from a first MPEG multiplexed data that includes the first MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, the second MPEG picture data is

25 picture data obtained from a second MPEG multiplexed data that includes the second MPEG picture data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system, and the third connection section re-encoded data is picture data obtained from a

30 connection section MPEG multiplexed data that includes the third connection section re-encoded data as an element encoded data and that has been generated by being packet-multiplexed according to the MPEG encoding system.